ABSTRACT OF THE DISCLOSURE

The 17β -(substituted)-3-oxo- $\Delta^{1,2}$ -4-azasteroids (I), wherein R^1 is C_1 - C_4 alkyl, OR^2 , wherein R^2 is a C_1 - C_4 alkyl radical, or NR^3R^4 , wherein R^3 and R^4 , equal or different, represent hydrogen or a C_1 - C_4 alkyl radical, can be obtained by means of a process comprising cleaving the oxazolidinedione ring present in a 2-(substituted)-3-hydroxyoxazolidinedione of formula (IV), wherein R^5 is Br or trichloromethylsulfonyl, and removing the substituent at position 2, to form a double bond at position 1,2. Some compounds (I) are testosterone- 5α -reductase inhibitors and can be used in the treatment of hyperandrogenic disorders.

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